

Work Order ID 56053

Page 1

February 9, 2010 1:24:03 PM

Item ID: D3535-15

Accept



Setup Start



Revision ID:

Item Name: Wearshoe

Stop



Start Date: 2/09/10 Start Qty: 6.00



Cust Item ID:

Required Date: 2/15/10 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 10-2-09

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
D3535	Rev B								

100



FLOW WATER JET

Waterjet

Memo

FLOW CNC Waterjet

1-Cut as per Dwg D3535 Dwg Rev: R Prog Rev: R 2-
Deburr if necessary

R 10-2-12

110



QC2- Inspect parts off machine FAI/FAIB

0.00

R 10-2-12

QC

Memo

Quality Control

120



QC8- Inspect parts - second check

0.00

10

QC

Memo

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 56053

Page 2

February 9, 2010 1:24:03 PM

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Setup Start



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Item Name: Wearshoe

Stop



Start Date: 2/09/10 Start Qty: 6.00



Cust Item ID:

Required Date: 2/15/10 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

130

Operation
Description

NC BRAKE

Set Up/
Run Hours

0.00

Draw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Brake NC

Memo

0.00

Brake NC

1-Form on Brake as per Dwg D3535 using Jigs DT8261and DT8326□2-Form
joggle as per Dwg D3535 using Jig DT8158□3-Identify as D3535-15

2/10/03/01 ①

140



QC5- Inspect part completeness to step on W/O

0.00

8/10/03/01

0.00

QC

Memo

(10) _____

Quality Control

150



Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

M112588

0.00

=> All 10/03/02

Powdercoat

Memo

START TIME: 3:15pm OVEN TEMPERATURE:
3:45pm FINISH TIME: 320F

(10) 9 _____

Powder Coating

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Work Order ID 56053

Page 3

February 9, 2010 1:24:03 PM

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Setup Start



Revision ID:

Item Name: Wearshoe

Stop



Start Date: 2/09/10 Start Qty: 6.00



Cust Item ID:

Required Date: 2/15/10 Req'd Qty: 6.00



Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center ID

160



QC

Quality Control

Operation
Description

QC3- Inspect Part Finish

Set Up/
Run Hours

0.00

Draw
Number

Rev.

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170



Packaging

Packaging

Identify as per dwg & Stock Location: F-18

0.00

M 10/03/03

(X10)

φ

180



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10/03/03 JJ

MKE 10-3-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 1

February 9, 2010 1:24:08 PM

Work Order ID: 56053



Parent Item: D3535-15



Parent Item Name: Wearshoe

Start Date: 2/09/10

Required Date: 2/15/10

Comments: IPP Rev:A New Issue 07-02-15 JLM

Start Qty: 6.00

Required Qty: 6.00

IPP Rev:B As per Rev B 07-08-31 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M304S20GA		Purchased	No			100	sf	229.1294	6.4453	11.		WRCO-2-12

304/316 .040 Sheet

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
MAT	229.1294053	
110076	0.40253684	
112567	38.0765789	
112885	36.9578	
113062	145.1723	113062
113077	8.52018947	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	56033
Description: Wearshoe	Part Number:	D3535-15
Inspection Dwg: D3535 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.885	+/-0.010	1.880	✓			
2.000	+/-0.010	2.000	✓			
5.650	+/-0.010	5.650	✗			
9.150	+/-0.010	9.150	✗			
14.400	+/-0.010	14.400	✗			
19.650	+/-0.010	19.650	✗			
24.900	+/-0.010	24.900	✗			
30.150	+/-0.010	30.150	✗			
33.650	+/-0.010	33.650	✗			
35.650	+/-0.010	35.650	✗			
39.150	+/-0.010	39.150	✗			
Ø0.188	+0.005/-0.001	.188	✓			
24.00	+/-0.030	24.00	✗			
16.00	+/-0.030	16.00	✗			
8.00	+/-0.030	8.00	✗			
5.00	+/-0.030	5.00	✗			
0.300	+/-0.010	.301	✗			
0.300	+/-0.010	.300	✓			
0.038	+/-0.010	.035	✓			

Measured by:	B	Audited by:		Prototype Approval:	N/A
Date:	10-2-12	Date:	/02-12	Date:	N/A

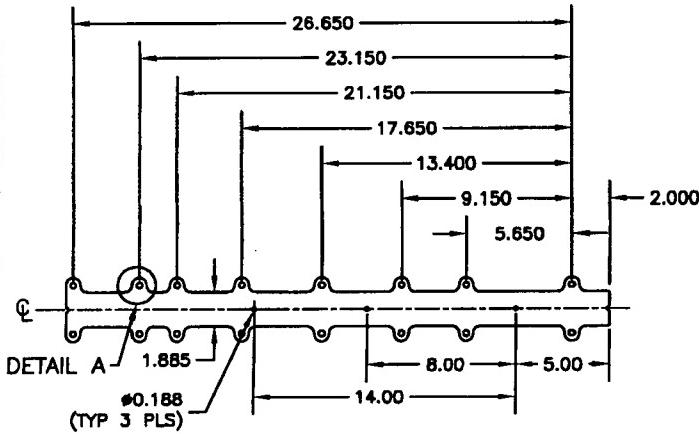
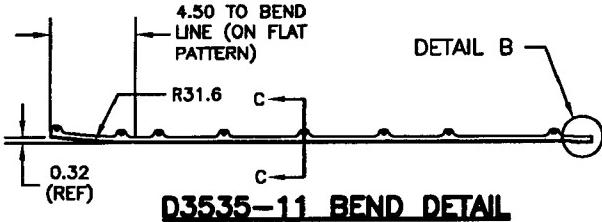
Rev	Date	Change	Revised by	Approved
A	07.05.10	New Issue	KJ/JLM	E

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

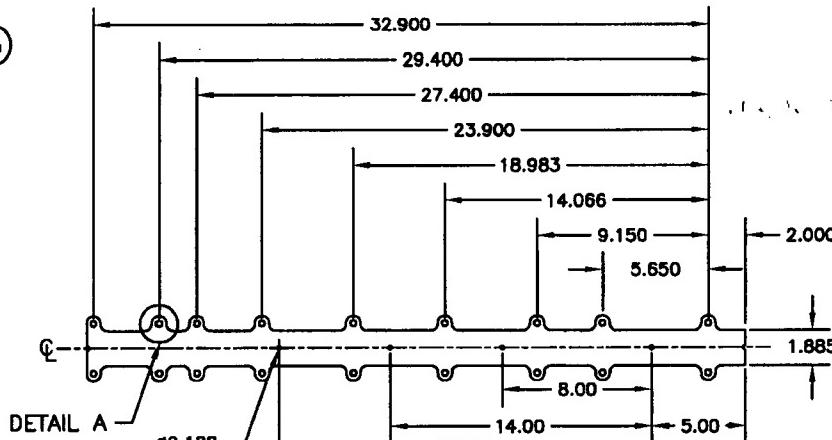
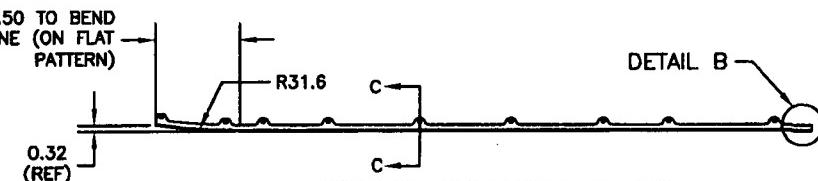
NOTE: Date & initial all entries

DART**D3535-11F FLAT PATTERN****D3535-11 BEND DETAIL**

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 56053

By 10-7-09

37.04.24
[Signature]
RELEASED

**D3535-13F FLAT PATTERN****D3535-13 BEND DETAIL****NOTES**

- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524.
20 GAUGE (0.038 THICK)
(REF DART SPEC M304S20GA)
- 2) FINISH: POWDER COAT GREY SANTEX (4.3.5.6) PER
QSI 005 4.3
- 3) PART IS SYMMETRICAL ABOUT $\frac{C}{2}$
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES TO 0.010 MAX
- 7) IDENTIFY WITH DART P/N USING WHITE FINE POINT
PAINT MARKER
- 8) SEE PAGE 7 FOR DETAILS AND SECTION

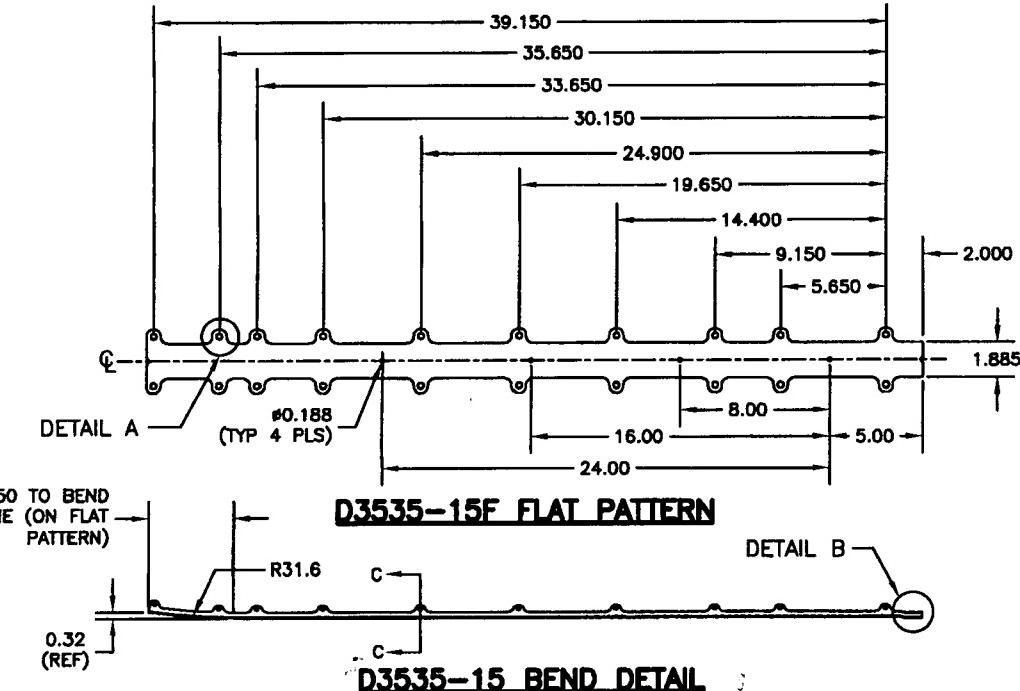
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CHECKED	APPROVED	DRAWING NO.	DATE
	<i>[Signature]</i>	D3535	
A		NEW ISSUE	07.04.17
B		MOVE TAB OUTBOARD, ADD AMS SPEC	07.04.17
		WEARSHOE	
		TITLE	
		SHEET 1 OF 7	
		SCALE	1:10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

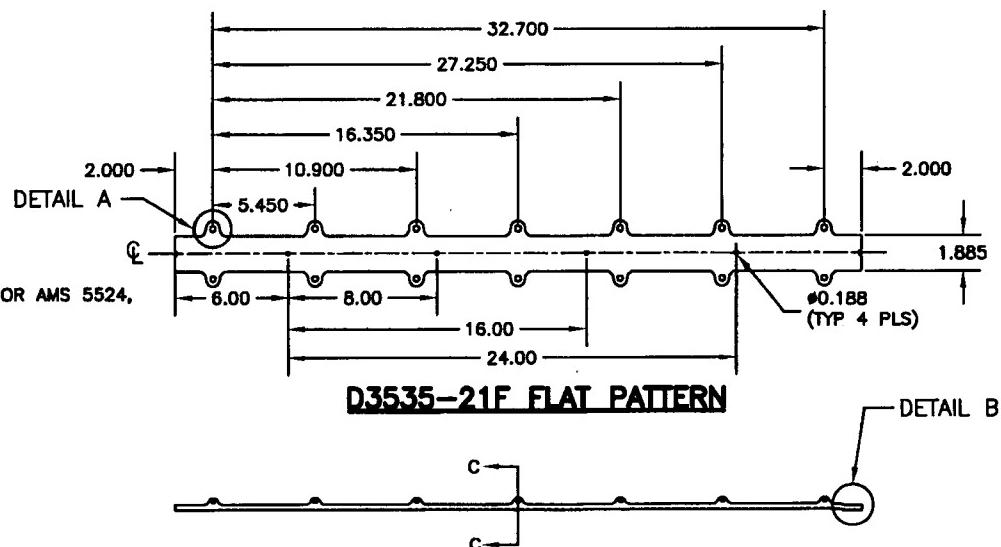
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



w/o 56053

RELEASED
07.04.17



D3535-21 BEND DETAIL

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.
C.B	RH	PORT HADLOCK, WA
CHECKED	APPROVED	DRAWING NO.
/	/	D3535
DATE	TITLE	SCALE
07.04.17	WEARSHOE	1:10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

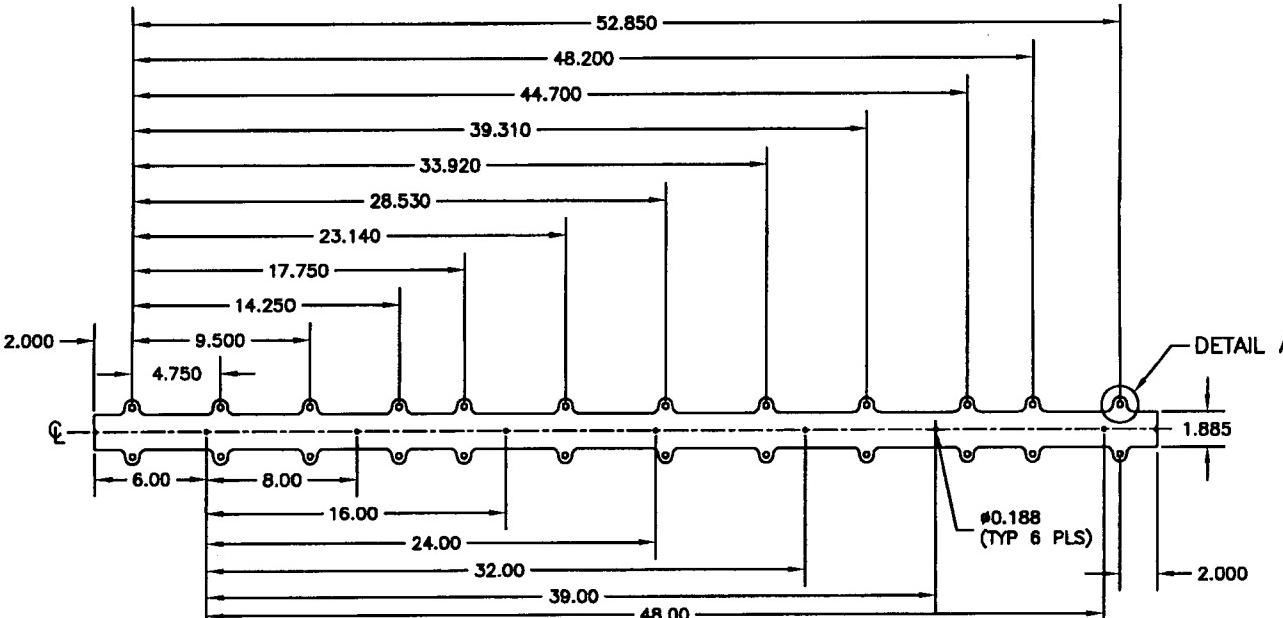
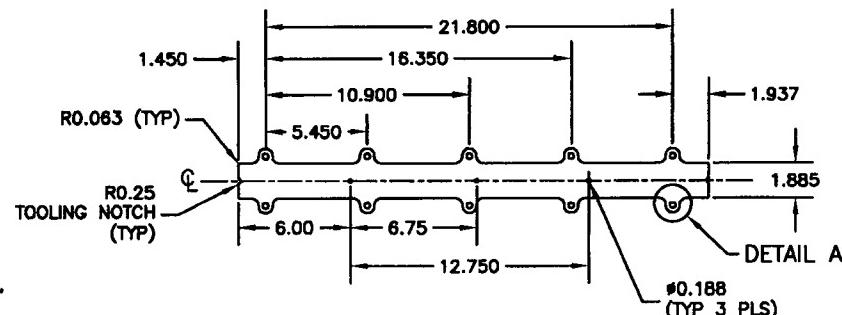
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN C.B	DRAWN BY <i>MH</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA
CHECKED <i>MH</i>	APPROVED <i>MH</i>	DRAWING NO. D3535
DATE 07.04.17	TITLE WEARSHOE	REV. B SHEET 3 OF 7 SCALE 1:10

**D3535-23 BEND DETAIL****NOTES**

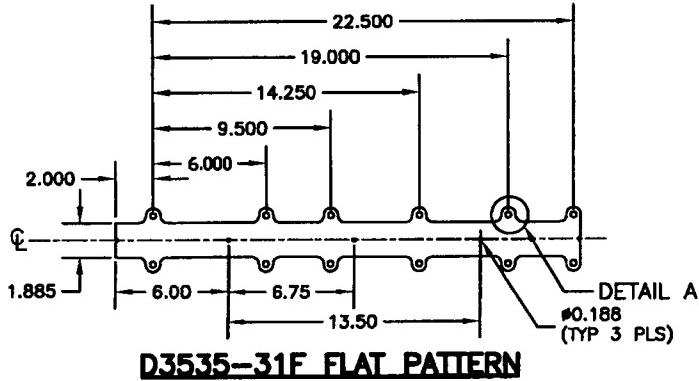
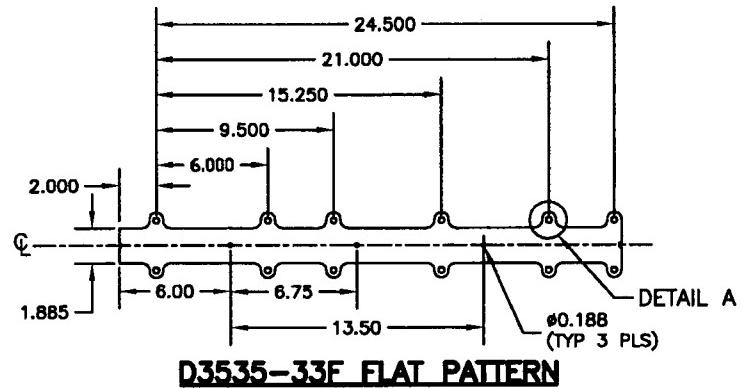
- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524,
20 GAUGE (0.038 THICK)
(REF DART SPEC M304S20GA)
- 2) FINISH: POWDER COAT GREY SANTEX (4.3.5.6) PER
QSI 005 4.3
- 3) PART IS SYMMETRICAL ABOUT $\frac{C}{2}$
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES TO 0.010 MAX
- 7) IDENTIFY WITH DART P/N USING WHITE FINE POINT
PAINT MARKER
- 8) SEE PAGE 7 FOR DETAILS AND SECTION

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DARTRELEASED
07.04.17**D3535-31F FLAT PATTERN****D3535-31 BEND DETAIL****D3535-33F FLAT PATTERN****D3535-33 BEND DETAIL**

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- NOTE:**
- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 20 GAUGE (0.038 THICK) (REF DART SPEC M304S20GA)
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07/05/2017

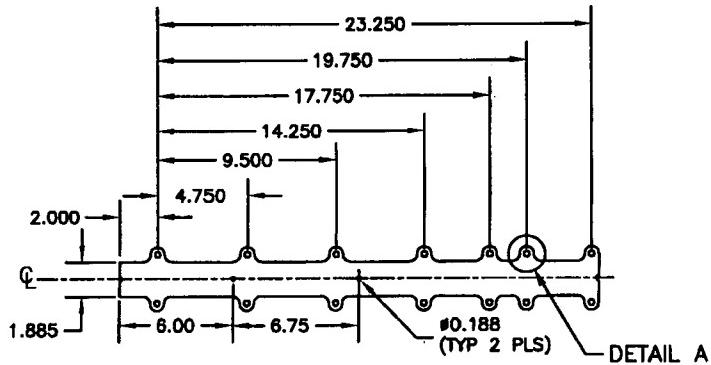
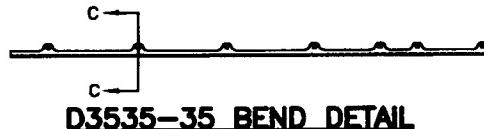
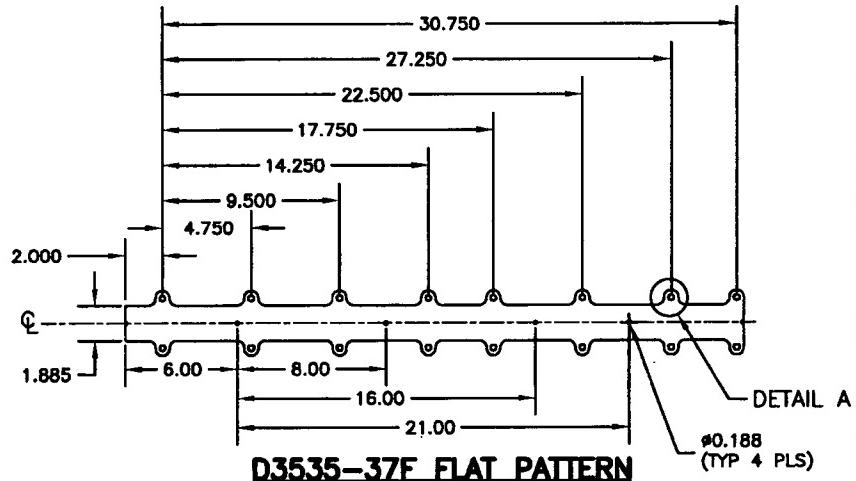
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CHECKED MM	APPROVED MM	DRAWING NO. D3535
DATE 07.04.17	TITLE WEARSHOE	REV. B SHEET 4 OF 7 SCALE 1:10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DARTRELEASED
07.04.17**D3535-35F FLAT PATTERN****D3535-35 BEND DETAIL****D3535-37F FLAT PATTERN****D3535-37 BEND DETAIL****NOTES**

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U10 54053

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CHECKED M	APPROVED M	DRAWING NO. D3535
DATE 07.04.17		TITLE WEARSHOE
		REV. B
		SHEET 5 OF 7
		SCALE 1:10

W/O:		WORK ORDER CHANGES					
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

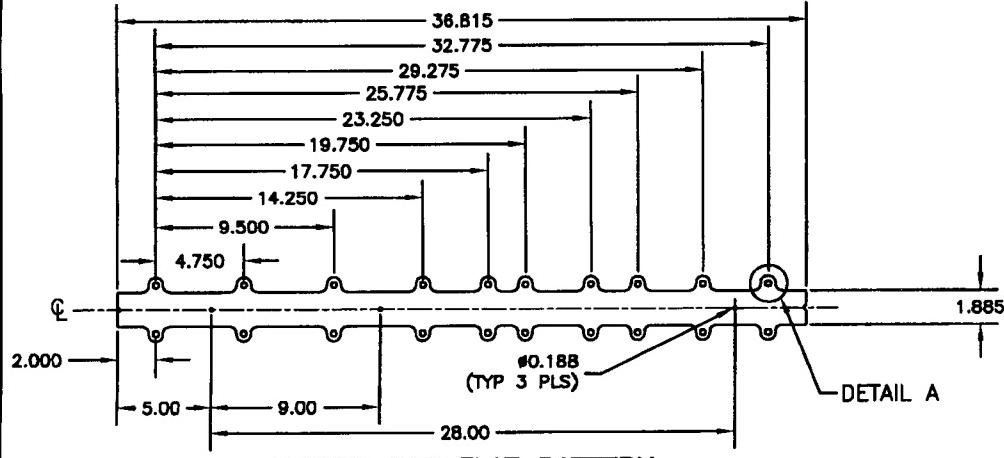
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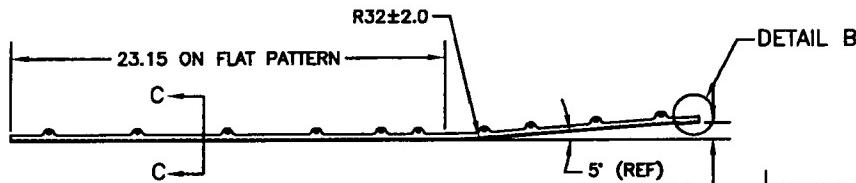
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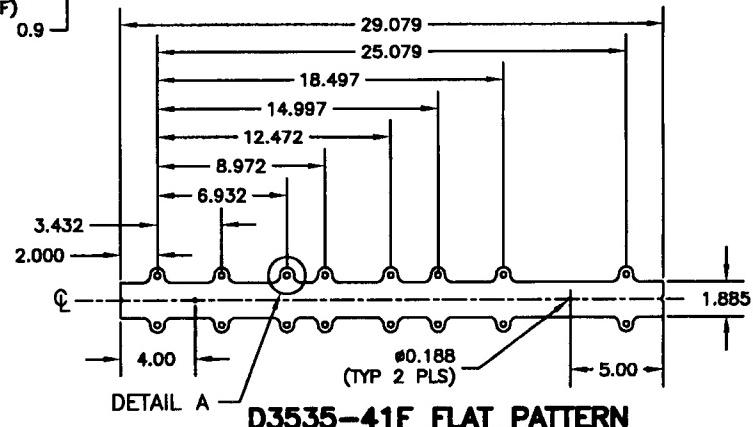
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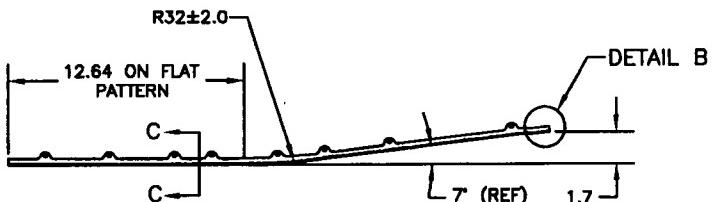
D3535-39F FLAT PATTERN



D3535-39 BEND DETAIL



D3535-41F FLAT PATTERN



D3535-41 BEND DETAIL

11/10/2006

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.
C.B	P.H	PORT HADLOCK, WA
CHECKED	APPROVED	DRAWING NO.
/	/	D3535
DATE		WEARSHOE
07.04.17		
SHEET	REV. B	SCALE
6 OF 7		1:10

RELEASED
07-04-24

DART

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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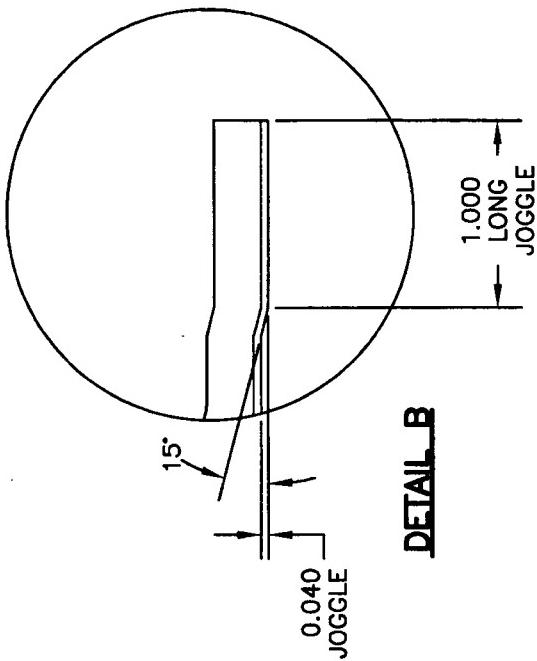
NOTE: Date & initial all entries

DART

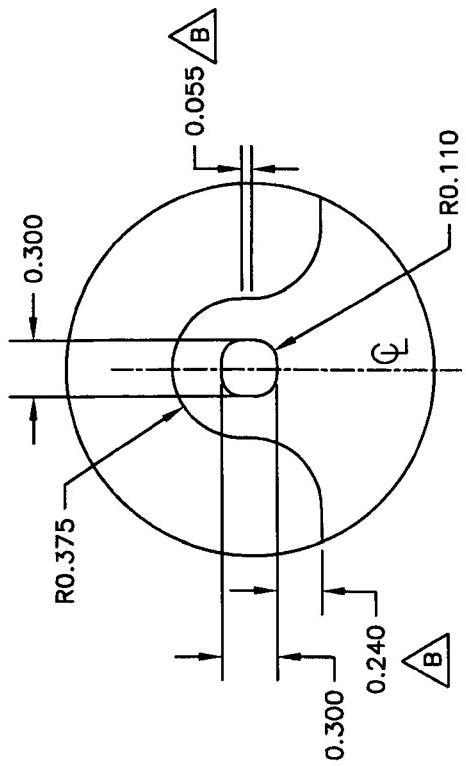
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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3535
DATE 07.04.17	TITLE	REV. B SHEET 7 OF 7 WEARSHOE 1:1

RELEASED

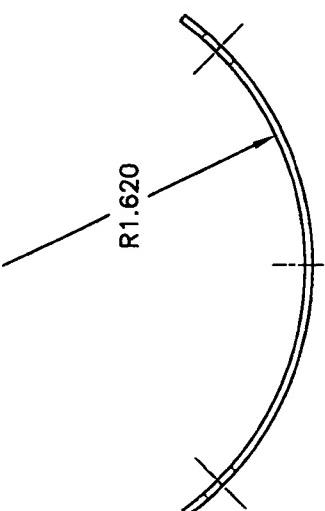
07.04.24 *[Signature]*



DETAIL B



DETAIL A



SECTION C-C

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries